

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-18. (Cancelled)

19. (Currently Amended) A method for a Max Sessions Server (MSS) of a data communications network to keep a count of the sessions used at a given time by a group of users and to correct the said count to compensate for abnormal disconnections of users belonging to the said group, the said method comprising:

assigning a unique identification value (UIV) to each port of a network access server (NAS) of the data communications network;

maintaining a master list having a plurality of entries, each entry containing at least (a) a UIV for a port associated with a logged in user and (b) respective group identification information for the said logged in user;

periodically checking a NAS to determine if it has become non-operational; and

responding to the non-operational status of a NAS by removing all entries having UIVs for ports associated with the non-operational NAS from the said master list and decrementing the count of the sessions used by the number of removed entries that correspond to the group,

wherein the said assigning includes performing a concatenation, for each port of the NAS, of a unique identifier for the NAS and a port identifier for the port.

20. (Currently Amended) The method of ~~A method in accordance with~~ claim 19, wherein:

the said periodically checking is performed with ~~by~~ an Authentication, Authorization and Accounting Server (AAA) associated with the MSS.

21. (Currently Amended) The method of ~~A method in accordance with~~ claim 19, further comprising:

transmitting a communication to another MSS on the data communications network to inform it of the non-operational status of a NAS.

22. (Currently Amended) The method of ~~A method in accordance with~~ claim 21, further comprising:

receiving a communication from another MSS on the data communication network advising of the non-operational status of a NAS; and

responding to the said communication by removing all entries having UIVs associated with the non-operational NAS from the said master list and decrementing the count of the sessions used by the number of removed entries that correspond to the group.

23. (Currently Amended) A method for a Resource Control Server (RCS) of a data communications network to keep a count of a particular resource used at a given time by a group of users and to correct the said count to compensate for abnormal disconnections of users belonging to the said group, the said method comprising:

assigning a unique identification value (UIV) to each port of a network access server (NAS) of the data communications network;

maintaining a master list having a plurality of entries, each entry containing at least (a) a UIV for a port associated with a logged in user and (b) respective group identification information for the said logged in user;

periodically checking a NAS to determine if it has become non-operational; and

responding to the non-operational status of a NAS by removing all entries having UIVs for ports associated with the non-operational NAS from the said master list and decrementing the count of the sessions used by the number of removed entries that correspond to the group,

wherein the said assigning includes performing a concatenation, for each port of the NAS, of a unique identifier for the NAS and a port identifier for the port.

24. (Currently Amended) The method of claim 23, wherein:

~~A method in accordance with claim 23 wherein~~

the said periodically checking is performed with ~~by~~ an Authentication, Authorization and Accounting Server (AAA) associated with the MSS.

25. (Currently Amended) The method of claim 23, further comprising:

~~A method in accordance with claim 23, further comprising:~~

transmitting a communication to another MSS on the data communications network to inform it of the non-operational status of a NAS.

26. (Currently Amended) The method of claim 25, further comprising:

~~A method in accordance with claim 25, further comprising:~~

receiving a communication from another MSS on the data communication network advising of the non-operational status of a NAS; and

responding to the said communication by removing all entries having UIVs associated with the non-operational NAS from the said master list and decrementing the count of the particular resource used by the number of removed entries that correspond to the group.

27. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform a method for a Max Sessions Server (MSS) of a data communications network to keep a count of the sessions used at a given time by a group of users and to correct said count to compensate for abnormal disconnections of users belonging to said group, the said method comprising:

assigning a unique identification value (UIV) to each port of a network access server (NAS) of the data communications network;

maintaining a master list having a plurality of entries, each entry containing at least (a) a UIV for a port associated with a logged in user and (b) respective group identification information for the said logged in user;

periodically checking a NAS to determine if it has become non-operational; and

responding to the non-operational status of a NAS by removing all entries having UIVs for ports associated with the non-operational NAS from the said master list and decrementing the count of the sessions used by the number of removed entries that correspond to the group,

wherein the said assigning includes performing a concatenation, for each port of the NAS, of a unique identifier for the NAS and a port identifier for the port.

28. (Currently Amended) A program storage device readable by a machine, tangibly embodying a program of instructions ~~instruction~~ executable by the machine to perform a method for a Resource Control Server (RCS) of a data communications network to keep a count of a particular resource used at a given time by a group of users and to correct the said count to compensate for abnormal disconnections of users belonging to the said group, the said method comprising:

assigning a unique identification value (UIV) to each port of a network access server (NAS) of the data communications network;

maintaining a master list having a plurality of entries, each entry containing at least (a) a UIV for a port associated with a logged in user and (b) respective group identification information for the said logged in user;

periodically checking a NAS to determine if it has become non-operational; and

responding to the non-operational status of a NAS by removing all entries having UIVs for ports associated with the non-operational NAS from the said master list and decrementing the count of the sessions used by the number of removed entries that correspond to the group,

wherein the said assigning includes performing a concatenation, for each port of the NAS, of a unique identifier for the NAS and a port identifier for the port.

29-53. (Cancelled)

54. (New) A Max Sessions Server (MSS) apparatus for use on a data communications network to keep a count of the sessions used at a given time by a group of users and to correct the count to compensate for abnormal disconnections of users belonging to the group, the apparatus comprising:

means for assigning a unique identification value (UIV) to each port of a network access server (NAS) of the data communications network;

means for maintaining a master list having a plurality of entries, each entry containing at least (a) a UIV for a port associated with a logged in user and (b) respective group identification information for the logged in user;

means for periodically checking a NAS to determine if it has become non-operational;
and

means for responding to the non-operational status of a NAS configured to remove all entries having UIVs for ports associated with the non-operational NAS from the master list and decrement the count of the sessions used by the number of removed entries that correspond to the group,

wherein the means for assigning is configured to perform a concatenation, for each port of the NAS, of a unique identifier for the NAS and a port identifier for the port.

55. (New) The apparatus of claim 54, wherein:

the means for periodically checking queries an Authentication, Authorization and Accounting Server (AAA) associated with the MSS.

56. (New) The apparatus of claim 54, further comprising:

means for transmitting a communication to another MSS over the data communications network to inform it of the non-operational status of a NAS.

57. (New) The apparatus of claim 56, further comprising:

means for receiving a communication from another MSS over the data communication network advising of the non-operational status of a NAS; and

means for responding to the communication configured to remove all entries having UIVs associated with the non-operational NAS from the master list and decrement the count of the sessions used by the number of removed entries that correspond to the group.

58. (New) A Resource Control Server (RCS) apparatus for use on a data communications network to keep a count of a particular resource used at a given time by a group of users and to correct the count to compensate for abnormal disconnections of users belonging to the group, the apparatus comprising:

means for assigning a unique identification value (UIV) to each port of a network access server (NAS) of the data communications network;

means for maintaining a master list having a plurality of entries, each entry containing at least (a) a UIV for a port associated with a logged in user and (b) respective group identification information for the logged in user;

means for periodically checking a NAS to determine if it has become non-operational;
and

means for responding to the non-operational status of a NAS configured to remove all entries having UIVs for ports associated with the non-operational NAS from the master list and decrement the count of the sessions used by the number of removed entries that correspond to the group,

wherein the means for assigning is configured to perform a concatenation, for each port of the NAS, of a unique identifier for the NAS and a port identifier for the port.

59. (New) The apparatus of claim 58, wherein:

the means for periodically checking is configured to query an Authentication, Authorization and Accounting Server (AAA) associated with the MSS.

60. (New) The method of claim 58, further comprising:

means for transmitting a communication to another MSS over the data communications network to inform it of the non-operational status of a NAS.

61. (New) The method of claim 58, further comprising:

means for receiving a communication from another MSS over the data communication network advising of the non-operational status of a NAS; and

means for responding to the communication configured to remove all entries having UIVs associated with the non-operational NAS from the master list and decrement the count of the particular resource used by the number of removed entries that correspond to the group.